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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/549,549

06/08/2006

Velu Ganesan

F2040(C)

3834

201 7590 12/24/2008
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EXAMINER

BADR, HAMID R

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

12/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/549,549	Applicant(s) GANESAN ET AL.	
	Examiner HAMID R. BADR	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/29/2006</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ganesan et al. (US 2001/0033880; hereinafter R1) in view of Lunder et al. (US 4,440,796; hereinafter R2).

3. R1 discloses a process for manufacturing black leaf tea that is infusible in hot or cold water. (Abstract).

4. R1 discloses that tea manufacture, especially black tea manufacture traditionally comprises; withering, macerating, fermenting and firing. [0017].

5. R1 discloses the process to comprise withering the plucked tea leaves (optional, but preferred), maceration in which the withered leaves are rolled to bruise and crush the leaves, fermentation during which catechins are converted to colored substances and finally firing in which the fermented product is fired and dried to give a black leaf tea. [0018-0020].

6. R1 discloses a modification of the traditional process by treating the tea leaves with a solubilizing compound including ascorbic acid or its salts in order to enhance the solubility of the black tea in cold water. [0022].

Art Unit: 1794

7. R1 teaches that the tea leaves are treated with the solubilizing compound post plucking, prior to withering step. The compounds are in the form of a solution at a concentration of from 0.5-10% by weight of tea. The solubilizing compound can be applied singly or in split doses [0024-0025].

8. R1 discloses that the tea is fermented for 10 minutes to 3 hours at 10 to 60C [0026].

9. R1 discloses that the product obtained by the above process can be used to produce instant tea or for infusing black tea in water at temperatures in the range of 5-100C [0030]. Given that the tea will be an instant tea, it is clear that it can be infused by microwaving as presently claimed.

10. R1 teaches that ascorbic acid can be added before maceration, during maceration and post maceration. [0033]. Given that the fermentation starts with the onset of maceration, the addition of ascorbic acid during maceration or post maceration can be considered during the fermentation stage.

11. R1 discloses a process in which the ascorbic acid solution is added after 30 minutes of fermentation and the fermentation is allowed to continue for another 30 minutes [Example 1, preparation of Sample 3].

12. R1 is silent regarding the use of other organic acids such as citric acid.

13. R2 discloses a process for the production of a cold soluble powdered tea extract by treating the tea with carboxylic acids before fermentation (Abstract).

14. R2 discloses that the process of invention is applicable to all kinds of black teas. (Col. 1, line 35).

Art Unit: 1794

15. R2 discloses the carboxylic acids to include citric or malic acid. The amount that is used is conveniently from 30-60% by weight of the hot soluble powdered tea extract. (Col. 1, lines 40-45) Given that the amount of citric acid is based on the extract and not the tea leaves, it is clear that the amount will be in the range of citric acid as presently claimed when the yield of extract is calculated from the total amount of tea leaves.

16. R2 discloses that if desired, ascorbic acid may be added to the mixture. The amount of ascorbic acid may conveniently be up to 5% by weight.

17. Given that a uniform lowering of pH is desired in the bulk of tea leaves, it is clear that the citric acid will be added in the form of a solution as presently claimed.

18. The addition of citric acid as taught by R2 will help prevent the tea cream solubilization step (col. 1, lines 19-20) which in turn will help the economics of the process. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to modify the teachings of R1 and include the carboxylic acids such as citric acid as taught by R2 in the process. One would do so to help solubilize the tea compounds so that they remain soluble at low temperatures. Absent any evidence to contrary and based on the combined teachings of the cited references, there would be a reasonable expectation of success in making cold water soluble black tea.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAMID R. BADR whose telephone number is (571)270-3455. The examiner can normally be reached on M-T 5:30 to 4:30 (Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on (571) 272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hamid R Badr
Examiner
Art Unit 1794

/Callie E. Shosho/
Supervisory Patent Examiner, Art Unit 1794